# Contents

VOLUME 26, NUMBER 1, MARCH 1988

**C. W. Schneider.** *Craspedocarpus humilis* sp. nov. (Cystocloniaceae, Gigartinales) from North Carolina, and a reappraisal of the genus . . . . 1–9

**R. J. King, C. F. Puttock and R. S. Vickery.** A taxonomic study on the *Bostrychia tenella* complex (Rhodomelaceae, Rhodophyta) . . . . . 10–19

**I. Tsekos and A. M. Bosabalidis.** Proteinaceous inclusions in specialized thallus cells of *Chylocladia verticillata* (Rhodymeniales, Rhodophyta) . . . . 20–24

**G. M. Hallegraeff and I. A. N. Lucas.** The marine dinoflagellate genus *Dinophysis* (Dinophyceae): photosynthetic, neritic and non-photosynthetic, oceanic species . . . . . 25–42

**J. K. Payne and J. R. Stewart.** The chemical composition of the thallus wall of *Characiosiphon rivularis* (Characiosiphonaceae, Chlorophyta) . . . . 43–49

**D. I. May and Wm. J. Woelkerling.** Studies on the genus *Synarthrophyton* (Corallinaceae, Rhodophyta) and its type species, *S. patena* (J.D. Hooker et W.H. Harvey) Townsend . . . . . 50–71

**K. Lüning and K. Schmitz.** Dark growth of the red alga *Delesseria sanguinea* (Ceramiales): lack of chlorophyll, photosynthetic capability and phycobilisomes . . . . . 72–77

**J. R. Johansen, G. J. Doucette, W. R. Barclay and J. D. Bull.** The morphology and ecology of *Pleurochrysis carterae* var. *dentata* var. nov. (Prymnesiophyceae), a new coccolithophorid from an inland saline pond in New Mexico, USA . . . . . 78–88

**S. C. Lindstrom.** The Dumontieae, a resurrected tribe of red algae (Dumontiaceae, Rhodophyta) . . . . . 89–102

**J. L. Olsen and J. A. West.** *Ventricaria* (Siphonocladales-Cladophorales complex, Chlorophyta), a new genus for *Valonia ventricosa* . . . . . 103–108

**J. Brodie and M. D. Guiry.** Life history and reproduction of *Botryocladia ardreana* sp. nov. (Rhodymeniales, Rhodophyta) from Portugal . . . . 109–130

**G. T. Kraft.** *Dotyophycus abbottiae* (Nemaliales), a new red algal species from Western Australia . . . . . 131–141

**P. L. Beech and R. Wetherbee.** Observations on the flagellar apparatus and peripheral endoplasmic reticulum of the coccolithophorid, *Pleurochrysis carterae* (Prymnesiophyceae) . . . . . 142–158

**D. Penrose and Wm. J. Woelkerling.** A taxonomic reassessment of *Hydrolithon* Foslie, *Porolithon* Foslie and *Pseudolithophyllum* Lemoine emend. Adey (Corallinaceae, Rhodophyta) and their relationships to *Spongites* Kützing 159–176

In Memoriam . . . . . 177–178

Book Reviews and Publications Received . . . . . 179–182

Announcements . . . . . 182

Published 16 March 1988

VOLUME 26, NUMBER 2, JUNE 1988

**T.J. Entwisle.** An evaluation of taxonomic characters in the *Vaucheria prona* complex (Vaucheriaceae, Chrysophyta) . . . . . 183–200

**G.A. Kendrick, D.I. Walker and A.J. McComb.** Changes in distribution of macro-algal epiphytes on stems of the seagrass *Amphibolis antarctica* along a salinity gradient in Shark Bay, Western Australia . . . . . 201–208

**H. Nozaki.** Morphology, sexual reproduction and taxonomy of *Volvox carteri* f. *kawasakiensis* f. nov. (Chlorophyta) from Japan . . . . . 209–220

**M. Alvarez, T. Gallardo, M.A. Ribera and A. Gómez Garreta.** A reassessment of Northern Atlantic seaweed biogeography . . . . . 221–233

**T. Klinger and R.E. DeWreede.** Stipe rings, age, and size in populations of *Laminaria setchellii* Silva (Laminariales, Phaeophyta) in British Columbia, Canada . . . . . 234–240

**J.D. Dodge.** An SEM study of thecal division in *Gonyaulax* (Dinophyceae) 241–247

**C.J. O'Kelly.** Division of *Palmoclathrus stipitatus* (Chlorophyta) vegetative cells . . . . . 248–253

**M.H. Hommersand and S. Fredericq.** An investigation of cystocarp development in *Gelidium pteridifolium* with a revised description of the Gelidiales (Rhodophyta) . . . . . 254–272

**D.F. Kapraun, M.G. Gargiulo and G. Tripodi.** Nuclear DNA and karyotype variation in species of *Codium* (Codiales, Chlorophyta) from the North Atlantic . . . . . 273–282

**E. Schnepf, R. Meier and G. Drebes.** Stability and deformation of diatom chloroplasts during food uptake of the parasitic dinoflagellate, *Paulsenella* (Dinophyta) . . . . . 283–290

**B. Hickel and U. Pollingher.** Mass development of an iron precipitating cyanophyte (*Cyanodictyon imperfectum*) in a subtropical lake (Lake Kinneret, Israel) (Research Note) . . . . . 291–294

**P.G. Roessler.** Characteristics of abrupt size reduction in *Synedra ulna* (Bacillariophyceae) (Research Note) . . . . . 294–297

Report . . . . . 298

Book Reviews and Publications Received . . . . . 300

Announcements . . . . . 303

Published 10 June 1988

VOLUME 26, NUMBER 3, SEPTEMBER 1988

**R. Simonsen.** Observations on *Navicula okunoi* Hustedt (Bascillariophyceae) 305–311

**X. Zhang and J.P. van der Meer.** Polyploid gametophytes of *Gracilaria tikvahiae* (Gigartinales, Rhodophyta) . . . . . 312–318

**R.J. Anderson, R.H. Simons and J.J. Bolton.** *Zeacarpa leiomorpha* (Ralfsiaceae), a new genus and species of crustose marine Phaeophyceae from southern Africa . . . . . 319–326

**J. Scott, J. Thomas and B. Saunders.** Primary pit connections in *Compsopogon coeruleus* (Balbis) Montagne (Compsopogonales, Rhodophyta) . . . 327–333

**A. Fuggi, G. Pinto, A. Pollio and R. Taddei.** Effects of NaCl, $Na_2SO_4$, $H_2SO_4$, and glucose on growth, photosynthesis, and respiration in the acidophilic alga *Dunaliella acidophila* (Volvocales, Chlorophyta) . . . . . 334–339

**M. Cormaci and G. Furnari.** *Antithamnionella elegans* (Berthold) Cormaci et Furnari (Ceramiaceae, Rhodophyta) and related species, with the description of two new varieties . . . . . 340–346

**C. Perrone and G.P. Felicini.** Physiological ecology of *Schottera nicaeensis* (Phyllophoraceae, Rhodophyta): functional significance of heterotrichy . . 347–354

**D.R.A. Hill and R. Wetherbee.** The structure and taxonomy of *Rhinomonas pauca* gen. et sp. nov. (Cryptophyceae) . . . . . 355–365

**J. Larsen.** An ultrastructural study of *Amphidinium poecilochroum* (Dinophyceae), a phagotrophic dinoflagellate feeding on small species of cryptophytes . . . . . 366–377

**Y.M. Chamberlain.** Observations on an autogenous fertile outgrowth of *Lithophyllum crouanii* (Corallinales, Rhodophyta) from southern England . . 378–386

**M. Montresor and A. Zingone.** *Scrippsiella precaria* sp. nov. (Dinophyceae), a marine dinoflagellate from the Gulf of Naples . . . . . 387–394

**R.G. Hooper, E.C. Henry and R. Kuhlenkamp.** *Phaeosiphoniella cryophila* gen. et sp. nov., a third member of the Tilopteridales (Phaeophyceae) . . 395–404

**L. Druehl, R.G. Foottit and M. Masuda.** Morphological affinities of Japanese species of *Laminaria* (Phaeophyta) . . . . . 405–412

**S.B. Barlow and R.E. Triemer.** Alternate life history stages in *Amphidinium klebsii* (Dinophyceae, Pyrrophyta) . . . . . 413–420

**P.F.M. Coesel.** Biosystematic studies on the *Closterium moniliferum/ehrenbergii* complex (Conjugatophyceae, Chlorophyta) in western Europe. II. Sexual compatibility (Research Note) . . . . . 421–424

**C.H. Hay.** The occurrence of *Durvillaea antarctica* (Durvillaeales, Phaeophyta) at South Georgia, South Atlantic Ocean (Research Note) . . . . 424–427

**J.P. Smol.** The North American 'Endemic' *Mallomonas pseudocoronata* (Mallomonadaceae, Chrysophyta) in an Austrian Lake (Research Note) . . 427–429

Book Reviews and Publications Received . . . . . 430

Published 2 September 1988

VOLUME 26, NUMBER 4, DECEMBER 1988

**A. Fuggi, G. Pinto, A. Pollio and R. Taddei.** The role of glycerol in osmoregulation of the acidophilic alga *Dunaliella acidophila* (Volvocales, Chlorophyta): effect of solute stress on photosynthesis, respiration and glycerol synthesis 439

**C. Lambert, M.-Th. L'Hardy-Halos, R. Buis and C. Brière.** Etude expérimentale de la tagmatisation chez *Antithamnion plumula* var. *plumula* (Ceramiales, Rhodophyta) . . . . . 447

**J.M. Huisman.** *Balliella hirsuta* sp. nov. (Ceramiaceae, Rhodophyta) from Rottnest Island, Western Australia . . . . . 456

**J.A. West and H.P. Calumpong.** *Dawsoniocolax bostrychiae* (Choreocolacaceae, Gigartinales), an alloparasitic red alga new to Australia . . . . . 463

**R.E. De Wreede and H. Vandermeulen.** *Lithothrix aspergillum* (Rhodophyta): regrowth and interaction with *Sargassum muticum* (Phaeophyta) and *Neorhodomela larix* (Rhodophyta) . . . . . 469

**R.H. Reed.** Hyperosmotic pretreatment of marine macroalgae prior to extraction of chlorophyll in methanol and dimethylformamide . . . . . 477

**E. Theriot, H. Håkansson and E.F. Stoermer.** Morphometric analysis of *Stephanodiscus alpinus* (Bacillariophyceae) and its morphology as an indicator of lake trophic status . . . . . 485

**J.R. Rosowski and R.W. Hoshaw.** Advanced anisogamy in *Chlamydomonas monadina* (Chlorophyceae) with special reference to vacuolar activity during sexuality . . . . . 494

**M.F. Klemm and N.D. Hallam.** Standing crop of *Durvillaea antarctica* (Chamisso) Hariot (Phaeophyta) on the Australian sub-Antarctic Macquarie and Heard islands (Research Note) . . . . . 505

**R.W. Hoshaw and R.M. McCourt.** The Zygnemataceae (Chlorophyta): a twenty-year update of research (Phycological Reviews 10) . . . . . 511

In Memoriam . . . . . 549

Book Review . . . . . 551

Announcements . . . . . 552

Indexes to Volume 27 . . . . . 555

Published 1 December 1988